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Closure on "Analysis of an isotropic finite wedge under antiplane deformation"

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The following errors are detected in the article:

1. In the first of Eq. (19), $(-1)^k$ should read $(-1)^{k+1}$.
2. The domains of first and second of (42) should be interchanged.
3. Eqs. (43) should read

$$
\begin{aligned}
\tau_{rz}(r,\theta) &= \frac{P}{h\alpha}\sum_{k=0}^{\infty}(-1)^k\left[1-\left(\frac{h}{a}\right)^{\frac{(2k+1)\pi}{\alpha}}\right]\left(\frac{r}{h}\right)^{\frac{(2k+1)\pi}{2\alpha}-1}\sin\left(\frac{(2k+1)\pi\theta}{2\alpha}\right) \quad r\leqslant h\\
\tau_{\theta z}(r,\theta) &= \frac{P}{h\alpha}\sum_{k=0}^{\infty}(-1)^k\left[1-\left(\frac{h}{a}\right)^{\frac{(2k+1)\pi}{\alpha}}\right]\left(\frac{r}{h}\right)^{\frac{(2k+1)\pi}{2\alpha}-1}\cos\left(\frac{(2k+1)\pi\theta}{2\alpha}\right) \quad r\leqslant h\\
\tau_{rz}(r,\theta) &= \frac{P}{h\alpha}\sum_{k=0}^{\infty}(-1)^{k+1}\left[1+\left(\frac{r}{a}\right)^{\frac{(2k+1)\pi}{\alpha}}\right]\left(\frac{h}{r}\right)^{\frac{(2k+1)\pi}{2\alpha}+1}\sin\left(\frac{(2k+1)\pi\theta}{2\alpha}\right) \quad r\geqslant h\\
\tau_{\theta z}(r,\theta) &= \frac{P}{h\alpha}\sum_{k=0}^{\infty}(-1)^k\left[1-\left(\frac{r}{a}\right)^{\frac{(2k+1)\pi}{\alpha}}\right]\left(\frac{h}{r}\right)^{\frac{(2k+1)\pi}{2\alpha}+1}\cos\left(\frac{(2k+1)\pi\theta}{2\alpha}\right) \quad r\geqslant h
\end{aligned}
\tag{43}
$$

Having made the above changes cases (Ia), (Ib), (IIa), and (IIb) would be absolutely correct. In cases (Ia) and (IIa) the stress component τ_{rz} becomes discontinuous by setting $r = h$. However, if we take the limit as $r \to h$ we obtain continuous results. The plot of $S_{rz} = \tau_{rz}h\alpha/P$ verses r/a, where, $h/a = 0.4$, $\alpha = \pi/3$, $\theta = \pi/4$, for both cases utilizing 2000 terms of the series is provided.

The solution to cases (Ic) and (IIc) are erroneous. The trick is to choose the x-axis in the wedge such that not to coincide with the boundary of the wedge and carry out the analysis outlined in Kargarnovin et al.

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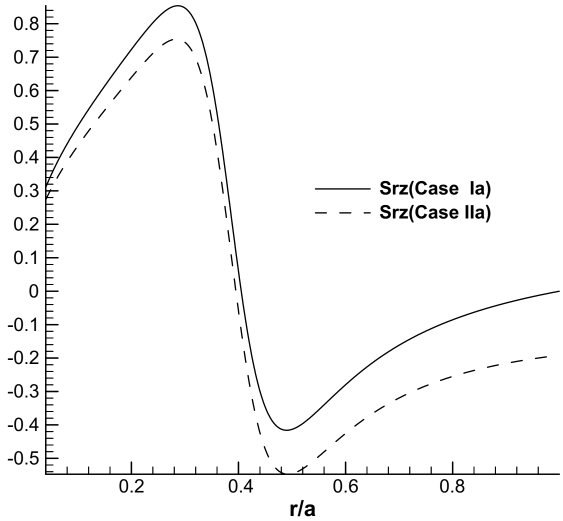
(1997). Again $\tau_{rz}(h_1,\theta)$ and $\tau_{rz}(h_2,\theta)$ may be obtain by taking the limits as $r \to (h_1,h_2)$. This makes most of the calculations of Chue and Liu redundant. It is noteworthy to mention that a more general form of the problem is treated by Kargarnovin and Fariborz (2000).



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